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Appl. No.: 10/524,710

Amdt. Dated July 6, 2007

Response to Advisory Action Mailed June 6, 2007

**REMARKS:**

Applicant appreciates the time and care the examiner has taken in examining the application. Applicant requests reconsideration of the final rejection of the claims, and states the following in support.

**On the Amendments.** In view of the examiner's interpretation evidenced in the Advisory Action continuation sheet concerning the breadth of the term "projecting parts" in the claims, the claims have been amended to specify first and second pairs of projections on the blade edge, instead of "first projecting parts" and "second projecting parts" of the blade edge. Also, amended claim 1 now more clearly specifies that the first pair of projections have guiding surfaces positioned at least partially outside of outside edges of the leg portions so as to guide the outside edges of the leg portions and restrict the broadening of leading ends of the leg portions when the leg portions of the staple pass through the bundle of papers.

The amendments are supported in the original specification at, *inter alia*, Figs. 1-2 and at page 5, line 26 through page 6, line 17. No new matter is added.

**On the Rejections.** Applicant respectfully traverses and requests reconsideration and withdrawal of the rejections of the claims under Section 103(a), and states the following in support. For the sake of brevity, the contents of the prior responses to Office actions are herein incorporated by reference.

With respect to the rejections, it is noted that amended independent claim 1 recites in pertinent part that the driver structure comprises (relevant reference numerals added and emphasis added):

*a first pair of projections (7, 7 or 12, 12), each projection of said first pair being provided at an opposite end portion of the blade edge (2), and being disposed to be in contact with a corner formed between the crown (6) and one of the leg portions (4, 4) for pressing the leg portion perpendicularly when the leg portion passes through the bundle of papers; and*

*a second pair of projections (8, 8 or 13, 13), each projection of said second pair being provided on the blade edge (2) in vicinity of one of the projections of said first pair (7, 7 or 12, 12), and being configured to be in contact with the crown in vicinity of one of the leg portions when the leg portion passes through the bundle of papers,*

*wherein each projection of said second pair (8, 8 or 13, 13), has a corner portion disposed adjacent to one of the corners of the staple, which engages with the crown and is configured to prevent the corner of the staple from slipping toward a central side of the crown, and*

*wherein each projection of said first pair (7, 7 or 12, 12) has a guiding surface (7A) positioned at least partially outside of an outside edge of one of the leg portions, so as to guide said outside edge of the leg portion and restrict the broadening of a leading end of the leg portion when the leg portion of the staple passes through the bundle of papers.*

Claim 3 recites (relevant reference numerals and emphasis added):

*The driver structure according to claim 1, further comprising a middle projection (9 or 10) provided on the blade edge (2) between the projections of said second pair (8, 8 or 13, 13), to hold the crown (6) of the staple when the pair of leg portions pass through the bundle of papers.*

The first pair of projections is denoted as parts 7, 7 in Figs. 1-3 and as parts 12, 12 in Fig. 4. The projections of this first pair (7, 7 or 12, 12) are disposed to be in contact with each staple corner that is formed between the crown 6 and each of the leg portions 4, 4 for pressing the pair of leg portions 4, 4 perpendicularly (See Figs. 1-4). It can be seen from Figs. 1-2 that the guiding surfaces (7A, 7A) of the projections of the first pair (7, 7 or 12, 12) are positioned at least partially outside of the outside edges of the staple leg portions, so as to guide these outside edges and thereby restrict the broadening of the leading ends of the leg portions.

The second pair of projections is denoted as parts 8, 8 in Figs. 1-3 and as parts 13, 13 in Fig. 4. This second pair of projections (8, 8 or 13, 13) is provided on the blade edge 2 in the vicinity of the first pair of projections (7, 7 or 12, 12). Each of the second pair of projections (8, 8 or 13, 13) is configured to be in contact with the crown 6 in vicinity of the pair of leg portions 4, 4. (See Figs. 1-4). Each of the pair of second projections (8, 8 or 13, 13) has a corner, which is disposed adjacent to the corner of the staple, which engages with the crown 6 and is configured to prevent the corner of the leg portion 4 from slipping toward the central side of the crown 6. (See corners of second set of projections 8, 8 in Figs. 1-3 and corners of projections 13, 13 in Fig. 4).

Claim 3 recites the additional feature of a middle projection for pressing the crown, positioned between the two projections of the second pair (8, 8 or 13, 13), denoted as reference numeral 9 in Fig. 1 and as numeral 10 in Fig. 2. In Fig. 2, the middle projection (10) projects slightly from edges (10A, 10A).

-- As to Claim 1. The cited references as combined fail to render obvious the features as claimed, because Ohmae fails to disclose or suggest both first *and* second pairs of projections, and Rinehardt fails to disclose or suggest the features of the first pair of projections having outside guiding surfaces as claimed. In the final Office Action, Ohmae's first set of projecting parts 17, 19 appear to be identified by the examiner as corresponding to the first pair of projections 7, 7 of the instant application. It is respectfully submitted that the examiner makes no adequate identification of a second pair of projections corresponding to the second pair of projections 8, 8 or 13, 13 of the instant claim 1. The examiner's depiction in a copied drawing, apparently Fig. 4 of Ohmae, shows the "Second projecting part" using an arrow pointing to a curved recess between a first projecting part 19 of Ohmae and Ohmae's single center projecting part 18. The latter, center projecting part 18 is designated by the examiner to be the "Third projecting part." It thus appears that the examiner considers the center projecting part 18 of Ohmae to correspond to the "second pair of projections" of the instant claim 1.

It is noted that claim 1 requires a second pair of projections, meaning that there are two of such projections in the "pair." Ohmae's center projection 18 is a single projection, not a pair.

In addition, claim 1 herein provides that *"each projection of said second pair (8, 8 or 13, 13), has a corner portion disposed adjacent to one of the corners of the staple, which engages with the crown and is configured to prevent the corner of the staple from slipping toward a central side of the crown."*

Ohmae's center projection 18 is a single projection, and so cannot read on "each projection of said second pair" having a corner portion disposed adjacent to its respective corner of the staple. Clearly, Ohmae's center projection 18 is not disposed so that its corner portion is disposed adjacent to the corner of the staple, because Ohmae's center projection 18 is a narrow crown-pressing member placed in the center of the blade edge of the driver 13, and is not in the vicinity of Ohmae's end-positioned projections 17, 19. Contrary to the terms of claim 1, Ohmae's projection 18 is not configured to be in contact with the crown "in vicinity of the pair of leg portions." Rather, Ohmae's projection 18 is configured to be in contact with the crown S<sub>5</sub>

at a position in the middle of the driver 13. (Ohmae col. 2 lines 56-60). In fact, Ohmae specifies that:

“The width  $W_1$  of the projected portion 18 in the middle is smaller than the interval  $P_1$  between inner sides of both leg portions  $S_3, S_4$  of a staple  $S$ . [P]rojected portion 18 is not in contact with the upper surface of the bends  $S_1, S_2$  that are the upper ends of both leg portions  $S_3, S_4$  of the staple.”

(Ohmae, col. 2 lines 62-67). This is contrary to the terms of claim 1, wherein the second pair of projections (8, 8 or 13, 13) is provided *in the vicinity of* the first pair of projections (7, 7 or 12, 12) located at the end of the blade edge, and each of the second pair of projections (8, 8 or 13, 13) is configured to be in contact with the crown 6 *in vicinity of* one of the pair of leg portions 4, 4. (See Figs. 1-4).

Further, Ohmae's projection 18 does not have a corner portion *disposed adjacent to one of the corners of the staple* and configured to prevent the corner of the staple from slipping toward a central side of the crown.

Moreover, the cited references, alone or together, fail to teach or render obvious the guiding surfaces 7A, 7A provided on the first pair of projections, positioned at least partially outside of an outside edge of one of the leg portions to guide the outside edge of the leg portion and restrict the broadening of a leading end of the leg portion when the leg portion of the staple passes through the bundle of papers. The examiner has identified Rinehardt as providing “first projecting parts 34 with guiding surfaces in the direction of A” as guiding surfaces corresponding to those of claim 1. However, Rinehardt specifies that its driver arms 34 have:

“...working edges.... provided with *curved surfaces* having a radius of curvature approximately equal to that of the curved upper portion of the recess 32a. The width of the entire working edge of the staple driving blade is approximately equal to the width of the staple to be driven.”

(Rinehardt, col. 3 lines 13-19). The reason for this curvature and width is to serve the purpose of Rinehardt's design, *i.e.*, to press a force in the direction of arrows A, A, forcing the upper ends of the leg portions in the direction of A, A, whereby "portions of the staple engageable with the legs 34 are also *flexed inwardly* such that the crown portion of the staple takes on a *contour substantially similar to the contour of the article.*" (Rinehardt, col. 5 lines 29-33). That contour is *round*, as seen in Fig. 5.

Hence, the construction and operation of Rinehardt's driver arms 34 do not correspond to those of the guiding surfaces 7A, 7A of the projections of the first pair (7, 7 or 12, 12). The guiding surfaces 7A, 7A in instant claim 1 are positioned at least partially outside the outside edges of the legs, and serve to keep the corners of the staple from becoming rounded. They do so by guiding the outside edges of the staple legs and restricting the legs from broadening, while the corners of the second pair of projections (8, 8 or 13, 13) engage with the crown and prevent the corners of the leg portions from slipping toward a central side of the crown. The corner of the projections of the second pair (8, 8 or 13, 13) is an approximate right angle, as implied by the term "corner" in claim 1, and as shown in Figs. 1-2. This clearly differs from the curved construction of the driver arms 34 of Rinehardt, and from the curved edges shown on the projections 17, 19 in Ohmae, Fig. 4.

The result of applicant's novel construction is *exactly the opposite of the result of Rinehardt's* construction: under the construction features in instant claim 1, the staple is cleanly bent at its corner into an approximate right angle, *without* becoming rounded. This means it would not be obvious to try to combine Ohmae with Rinehardt to achieve the goal of the instant claim 1: a cleanly bent right-angled corner of a staple. Rinehardt's structure teaches away from such a result. Thus, there is no apparent reason to combine the curved driver arms 34 of Rinehardt with the projecting parts of Ohmae to yield the features of claim 1 herein, and hence no *prima facie* case of obviousness has been established under the standards of *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727 (2007).

-- As to Claims 3-4. The examiner appears to cite Ohmae's center projection 18 as corresponding to **both** the second pair of projections (8, 8 or 13, 13) and the middle projection (9 or 10) of claim 3 herein. Claim 1 distinctly claims two pairs of projections, to which claim 3 adds an additional middle projection. It is therefore submitted that the examiner makes no adequate finding of teaching or suggestion of a middle projection corresponding to the features claimed in claims 3-4. Thus, the examiner's combination of Ohmae and Rinehardt fails to render obvious the claimed features; no prima facie case of obviousness has been established with regard to claims 3-4.

*Conclusion.* Therefore, it is respectfully submitted that the claims are not rendered obvious by the combination of Ohmae with Rinehardt, because they fail to yield the features claimed and their combination would not have been obvious under the legal standards presently in force. It is requested that the rejections be reconsidered and withdrawn. It is respectfully submitted that the application is in condition for prompt allowance and that all of the objections, rejections and requirements raised in the Office action have been met. Early, favorable treatment of this application is requested.

*Extension Request and Deposit Account Charge Authorization.* The Commissioner is hereby authorized to charge any necessary fees, or credit any overpayment, associated with this communication, including fees for any necessary extension of time under 37 CFR §1.136(a) for filling this communication, which extension is hereby requested, to our Deposit Account No. 50-0305 of Chapman and Cutler LLP. It is noted that the extension deadline is July 6, 2007 (one month extension), under MPEP §706.07(f) in view of the existing circumstance of a first reply having been filed within two months after mailing of the final action, and an advisory action having been issued more than three months after mailing of the final action.

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The examiner is encouraged to telephone the undersigned with any questions or comments so that efforts may be made to resolve any remaining issues.

Respectfully submitted,

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